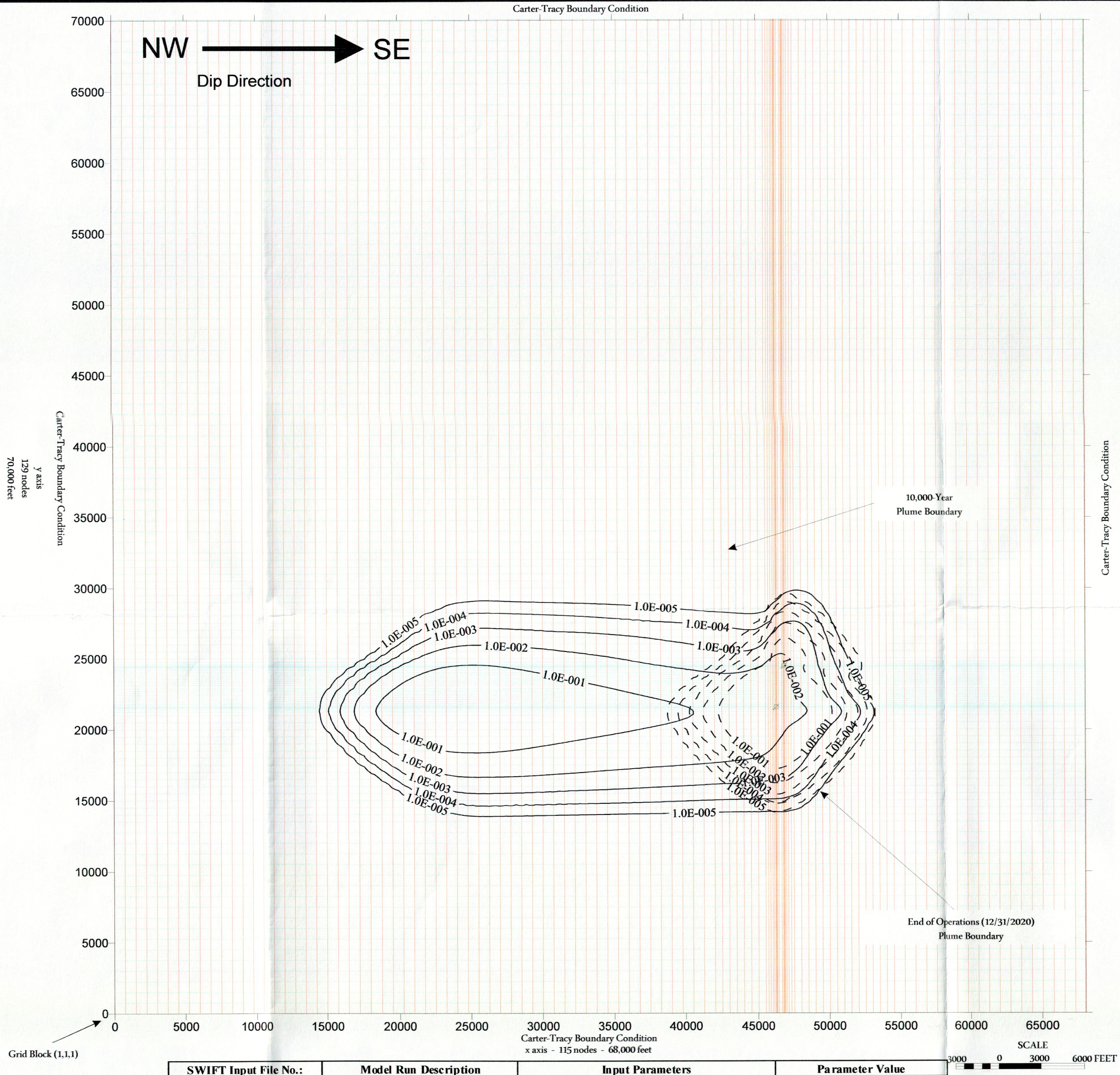


SWIFT Input File No.:	Model Run Description	Input Parameters	Parameter Value
ExMob_EF HiDens.dat	Downdip lateral migration during 10,000 years in Frio E&F Sand. End of operations on 12/31/2020. Historical injection from 7/1/2008 to 12/31/2008 at 700 gpm into WDW-397. Future injection from 1/1/2009 to 12/31/2020 at 1,200 gpm into WDW-397.	Reservoir Flow Capacity Hydraulic Conductivity Intrinsic Permeability (k) Porosity Reservoir Thickness (h) Reservoir Dip Injectate Density Injectate Specific Gravity Injectate Viscosity* Reservoir Brine Density Reservoir Brine Specific Gravity Reservoir Brine Viscosity* Ground Water Flow Rate Rock Compressibility Fluid Compressibility Reservoir Temperature SWIFT Effective Diffusion Coefficient Longitudinal and Lateral Dispersivity	300,000 mD-ft 11.915 ft/day 2,000 mD 0.28 150 ft 1.145° NW to SE 64.25 lb/ft³ @ 169°F 1.050 @ 60 °F 0.439 cP @ 169 °F 66.02 lb/ft³ @ 169 °F 1.073 @ 60 °F 0.487 cP @ 169 °F 0.0 ft/yr 3.20 x 10⁻⁶ psi⁻¹ 2.43 x 10⁻⁶ psi⁻¹ 169 °F 8.33 x 10⁻¹ ft²/day 100 ft and 10 ft

\* variable viscosity with temperature from 60 °F to 200 °F

**MODEL RESULTS SUMMARY:** The injected waste plume extends 7,400 feet up-gradient, 7,100 feet down-gradient, 6,950 feet to the northeast and 8,600 feet to the southwest from the WDW-397 injection well at the end of operation (12/31/2020). The end-of-operations waste plume is oval in shape and has a width of 15,550 feet on the long axis and 14,500 feet on the short axis. The injected waste plume extends 32,100 feet up-gradient and 6,950 feet down-gradient from the WDW-397 injection well and is approximately 15,550 feet wide at its widest point after 10,000 years.



SWIFT Input File No.:	Model Run Description	Input Parameters	Parameter Value
ExMob_EF_398 HiDens.dat	Downdip lateral migration during 10,000 years in Frio E&F Sand. End of operations on 12/31/2020. Historical injection from 7/1/2008 to 12/31/2008 at 700 gpm into WDW-397. Future injection from 1/1/2009 to 12/31/2020 at 1,200 gpm into WDW-398).	Reservoir Flow Capacity Hydraulic Conductivity Intrinsic Permeability (k) Porosity Reservoir Thickness (h) Reservoir Dip Injectate Density Injectate Specific Gravity Injectate Viscosity* Reservoir Brine Density Reservoir Brine Specific Gravity Reservoir Brine Viscosity* Ground Water Flow Rate Rock Compressibility Fluid Compressibility Reservoir Temperature SWIFT Effective Diffusion Coefficient Longitudinal and Lateral Dispersivity	300,000 mD-ft 11.915 ft/day 2,000 mD 0.28 150 ft 1.145° NW to SE 64.25 lb/ft³ @ 169°F 1.050 @ 60 °F 0.439 cP @ 169 °F 66.02 lb/ft³ @ 169 °F 1.073 @ 60 °F 0.487 cP @ 169 °F 0.0 ft/yr 3.20 x 10⁻⁶ psi⁻¹ 2.43 x 10⁻⁶ psi⁻¹ 169 °F 8.33 x 10⁻¹ ft²/day 100 ft and 10 ft

\* variable viscosity with temperature from 60 °F to 200 °F

**MODEL RESULTS SUMMARY:** The injected waste plume extends 7,500 feet up-gradient, 6,950 feet down-gradient, 7,950 feet to the northeast and 7,450 feet to the southwest from the WDW-398 injection well at the end of operation (12/31/2020). The end-of-operations waste plume is oval in shape and has a width of 15,400 feet on the long axis and 14,500 feet on the short axis. The injected waste plume extends 31,800 feet up-gradient and 6,800 feet down-gradient from the WDW-398 injection well and is approximately 15,200 feet wide at its widest point after 10,000 years.

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PLATE 7-21

LATERAL MIGRATION  
MODEL GRID AND RESULTS  
(ExMob\_EF HiDens & ExMob\_EF\_398 HiDens)  
(Frio E&F Sand High Density Lateral Migration Model)

PREPARED FOR  
EXXON MOBIL CORPORATION  
PASADENA, TEXAS

DRAWN BY: tdm

DESIGNED BY: SAME

CHECKED BY: T. Moody

SCALE: As Indicated

DATE: 03-07-2011

JOB NO: 11-101